RIVER RESOURCES FORUM #82

Tuesday, 26 August 2008, 10:00 – 3:30 Wednesday, 27 August 2008, 8:00 – 12:00

American Legion, LaCrescent, MN

See page 2 for meeting location and lodging information

<u>Agenda</u>

Tuesday, 26 August

10:00 – 10:15	Introductions, Approve Minutes, Next Meetings & Locations	Tapp/Benjamin
10:15 – 11:00	Agency Activities	All
11:00 – 11:15	Water Level Management Task Force Activities	Schlagenhaft
11:15 – 11:30	Floodplain Restoration Task Force Discussion	Schlagenhaft
11:30 – 12:00	Environmental Management Program	Powell
12:00 - 3:30	Lunch and Tour – Pool 8 Phase III Stage 2	
3:30	Adjourn	

Wednesday, 27 August

8:00 - 8:15	Recap of yesterday	Tapp/Benjamin
8:15 – 9:00	Channel Maintenance Program Activities - Fisher and Corps Island Unloading Update	COE-CH
9:00 - 9:25	Navigation Work Group Activities	Machajewski
9:25 – 10:15	MPCA Dredge Sediment Requirements	Mader
10:15 – 10:30	Break	
10:30 – 11:00	Navigation & Ecosystem Sustainability Program (NESP)	DeZellar
11:00 – 11:30	Fish & Wildlife Work Group Activities	Anderson
11:30 – 12:00	Recreation Work Group Activities	Berg
12:00	Adjourn	

Meeting Location for RRF #82

American Legion, 509 N Chestnut St, LaCrescent, MN



Lodging Information

Holiday Inn 200 Pearl St, LaCrosse, WI 54601 608-784-4444

A block of 30 rooms are on hold until **August 20**. You must state you are making reservations under the "River Resource Forum" block. The rate is \$70/nite plus tax. Check in time is 3:00 PM, check out time is 12:00 PM.

RIVER RESOURCE FORUM #82

26 & 27 August 2008

NAME	ORG	EMAIL	PHONE NO.
Dennis Anderson	COE	Dennis.d.anderson@usace.army.mil	651-290-5272
Dan Cottrell	COE	Daniel.j.cottrell@usace.army.mil	608-687-3112 x3
Dan Wilcox	COE	Daniel.b.wilcox@usace.army.mil	651-290-5276
Don Powell	COE	donjanp@comcast.net	763-757-5027
Jeff DeZellar	COE	Jeffrey.t.dezellar@usace.army.mil	651-290-5433
Jerry Stalder	COE	jerry.l.stalder@usace.army.mil	608-687-9104 x1
Kevin Baumgard	COE	Kevin.l.baumgard@usace.army.mil	651-290-5320
Kevin Berg	COE	Kevin.f.berg@usace.army.mil	507-895-6341
Lisa Lund	COE	lisa.j.lund@usace.army.mil	608-687-3112 x2
Paul Machajewski	COE	paul.r.machajewski@usace.army.mil	507-454-6150
Steve Tapp	COE	steven.d.tapp@usace.army.mil	608-687-3112 x1
Terry Birkenstock	COE	Terry.Birkenstock@usace.army.mil	651-290-5264
Gary Wege	FWS	Gary_wege@fws.gov	612-725-3548 x207
Mary Stefanski	FWS	Mary_Stefanski@fws.gov	507-494-6229
Tony Sullins	FWS	Tony_sullins@fws.gov	612-725-3548 x2201
Martin Konrad	IA DNR	Martin.konrad@dnr.iowa.gov	515-281-6976
Mike Griffin	IA DNR	Michael.griffin@dnr.iowa.gov	563-856-5880
Terry Schwalbe	LMRWD	terrys@lowermn.com	952-227-1037
Rebecca Wooden	MN DNR	Rebecca.wooden@dnr.state.mn.us	651-259-5717
Scot Johnson	MN DNR	Scot.johnson@dnr.state.mn.us	651-345-5601 x245
Tim Schlagenhaft	MN DNR	tim.schlagenhaft@dnr.state.mn.us	651-345-3365 x233

NAME	ORG	EMAIL	PHONE NO.
Judy Mader	MPCA	Judy.mader@pca.state.mn.us	651-296-7315
Larry Kieck	WDOT- harbors	Lawrence.Kieck@dot.state.wi.us	608-267-9319
Gretchen Benjamin	WI DNR	Gretchen.benjamin@wisconsin.gov	608-785-9982
Jim Fischer	WI DNR	Jamesr.fischer@wisconsin.gov	608-785-9004
Marc Schultz	LaCrosse Alliance	schultzma@charter.net	608-781-1662
John Wetzel	LaCrosse Alliance	John769@centurytel.net	608-526-4238



14 July 2008

Colonel Robert A. Sinkler Commander, Rock Island District U.S. Army Corps of Engineers Clock Tower Building P.O. Box 2004 Rock Island, IL 61204-2004

Dear Colonel Sinkler:

The River Resources Forum (RRF) held their 81st meeting on April 29 and 30, 2008. As you probably know the River Resources Forum (RRF or Forum) has been involved in Upper Mississippi River System (UMRS) management with the St. Paul District of the Corps of Engineers since 1980. Through this Forum State and Federal agencies solve important river issues in an open and collaborative format to balance the needs of commercial navigation with the needs of sustaining the vital river ecosystem. The recent passage of WRDA 2007, and the authorization of the Navigation and Ecosystem Sustainability Program (NESP), has RRF members ecstatic about the future of ecosystem restoration, navigation efficiency improvement, and the role that this group will play in the program.

NESP issues have become major Forum agenda items in recent years. The lack of visible progress due to inadequate funding for the systemic public involvement program is one of many NESP issues that is continually discussed. This concern is further heightened by the information that this already underfunded element would be cut an additional \$50,000 this fiscal year. Steering the priority of the limited funded to other elements of the program which are not as pressing as public involvement does not seem consistent with current program needs. The program needs to reach out to many interest groups about the NESP and the sooner this is done the sooner there will be an effective program that can move forward on the important work of navigation efficiency improvement and ecosystem restoration on the UMRS.

The RRF members sincerely want program success, and it is our firm belief that we need strong public and Congressional support to accomplish this goal. Although we understand the NESP budget is extremely constrained for FY 2008, establishing, refining, and implementing the tools for public involvement and relationships is crucial, especially during the outset of the program. This effort should be a top priority for funding this fiscal year and coming fiscal years.

Now that the program has been authorized, investing in the public relations element in order to improve program identification, the website, newsletter, public interactive meetings, public education, and any other public relation tools, is essential if we are going to get the level of appropriations needed for the program to achieve its goals and objectives. One particular issue of immediate attention in the Forum's opinion is the establishment of a much more recognizable identity for NESP, which may include a name change for the program. A strong identity for the program, which both the public and Congressional interests can embrace, will only increase the chance that the program will be adequately funded for the work needed on the UMRS over the next 50 years.

River Resources Forum Agencies
Federal – USACE, USFWS, USCG, EPA, NPS
State – Minnesota DNR, DOT & PCA; Wisconsin DNR & DOT; Iowa DNR &DOT

The Forum is more than willing to work with you on this important issue in hopes of getting the good word out about this new and exciting program. It supports you in this effort to create a strong vigorous program

Sincepely

Gretchen Benjamin

Co-Chair

River Resources Forum

Steven D. Tapp

Co-Chair

River Resources Forum

cc: Charles Spitzack, NESP Regional Project Manager

Ken Barr, NESP Environmental Technical Manager Brigadier General Michael Walsh, Division Commander

DRAFT FOR DISCUSSION - NECC Meeting 8/7/08

Floodplain Coordination Task Force

Purpose:

Restore and manage floodplains for natural resource, flood damage reduction, and economic benefits in conjunction with systemic floodplain restoration efforts across the UMR.

Potential Membership:

SWCD, NRCS, agriculture NGO's (Farm Bureau, Corn Growers), landowners, universities, state and federal agriculture and natural resource agencies, environmental NGO's (TNC, DU, Audubon), others?

Tasks

- 1) Form committee
- 2) Initial meetings to understand issues and develop common goals (2/year)
 - a. Hydrological changes over time
 - b. Recent hydrologic events, current conditions, future trends
 - c. Flood damages
 - d. Historical and current land cover/land use
 - e. Economic opportunities
 - f. Floodplain restoration options
 - g. Recreational opportunities
- 3) Develop range of opportunities and alternative actions
- 4) Implement small scale experiments and document results (economics, natural resources, alternative energies, etc.)
- 5) Implement larger scale projects and document results
- 6) Summarize and distribute results
- 7) Develop long-term strategy and/or program

Timeline

<u>Task</u>	2008	2009	2010	2011	2012 - 2014	2015 - 2023
1	X					
2		X	X			
3				X		
4					X	
5					X	X
6					X	X
7						X

	ST. PAUL DISTRICT (MVP) - CORPS OF ENGINEERS 2008 Dredging Schedule by Equipment 26-Aug-2008										
			2006 D	Scheduled D					20-A	ug-2006	
				001104410412		th (ft) & Est.			Dredging	Task	
Pool		Dredge Cut Name	River Mile	Dredging Dates		uantity (cy)	Equip.	Placement Site	Notice #	Order#	Cat.
5A	**	Betsy Slough	731.1 - 731.4	5/29 - 6/5	13	32,005	GZ	5A-731.9-LWP	DN 08-02		R
4	**	Grand Encampment Reads Landing	756.5 - 756.8 762.4 - 762.9	6/6 - 6/12	12 12	39,647	GZ	4-756.5-LWT	DN 08-03		!
4	**	Crats Island	758.8 - 759.3	7/7 - 7/14 7/15 - 7/20	12	35,130 30,997	GZ GZ	4-762.7-LWT 4-759.3-LWT	DN 08-06 DN 08-01		l R
5	**	Fisher Island	745.0 - 745.7	7/13 - 7/28	12	46,336	GZ	5-744.7-LWT	DN 08-01		R
5	**	Lower Zumbro	744.1 - 744.5	7/29 - 8/2	12	21,243	GZ	5-744.7-LWT	DN 08-10		R
9	**	Lansing Upper Light	663.8 - 664.8	8/5 - 8/11	12	51,612	GZ	9-663.5-LWP	DN 08-11		R
		Dredging For MVR		8/11 - ?							
_	**	2		=//=/0.4		= 100	DQ		B11 00 00		_
8 7	**	Root River Lock Chamber L&D 7	692.9 - 693.5 702.5	7/18 - 7/24 8/11/2008	12 22	5,483 400	GM GM	8-696.1-LWP 5A-731.9-LWP	DN 08-08 DN 08-15		E R
4	**	Lock Chamber L&D 4	752.9	8/20 - 9/3	20	90	GM	4-754.0-LWP	DN 08-15		R
_	*	Aux. Lock Chamber L&D4	752.8	8/20 - 9/3	8	3,007	GM	4-754.0-LWP	DN 08-16		R
4	**	Teepeeota Point	757.5	6/23- 7/28		42,912	CM1	4-752.8-RMP		0001	
8	**	Root River	692.9 - 693.5	7/30 - 8/23	12	26,469	CM1	8-696.1-LWP	DN 08-08	0005	- 1
8	**	Above Brownsville	690.1	8/23/2008	12	350	CM1	8-696.1-LWP	DN 08-18	0012	Е
9	*	Indian Camp Light	665.4 - 665.8	8/25 - 9/4	12	12,753	CM1	9-663.5-LWP	DN 08-14	0009	R
9		Indian Camp Light	665.4 - 665.8	8/25 - 9/4	12	200	CM1	9-665.8-RIP	DN 08-14	0009	
9		Indian Camp Light	665.4 - 665.8 665.4 - 665.8	8/25 - 9/4	12 12	400 400	CM1 CM1	9-664.6-LWP	DN 08-14 DN 08-14	0009 0009	
9		Indian Camp Light Indian Camp Light	665.4 - 665.8	8/25 - 9/4 8/25 - 9/4	12	2,000	CM1	9-664.3-RIT 9-664.0-RIP	DN 08-14 DN 08-14	0009	
7		Lower Dresbach Island	703.0 - 703.8	9/6 - 9/13	12	12,823	CM1	7-706.5-RMT	DIV 00-14	0003	R
6		LaMoille	706.1 - 706.6	9/14 - 9/20	12	11,225	CM1	6-720.5-RMP			R
				0,11 0,20		,					
3	**	Coulters Island	801.5 - 802.0	7/7 - 7/16	12	19,926	CM2	3-799.2-RMT	DN 08-05	0003	Е
3	**	Morgans Coulee	802.6 - 802.9	7/17 - 7/28	12	16,477	CM2	3-799.2-RMT	DN 08-07	0004	R
MN	**	Above Savage RR Bridge	14.3 - 14.7	7/30 - 8/6	11	11,785	CM2	MN-14.1-RMP	DN 08-09	0006	!
MN	**	Cargill Slip	12.5 - 13.6	8/6 - 8/11	11	5,018	CM2	MN-14.1-RMP	DN 08-12	0007	!
2	*	St. Paul Small Boat Harbor Diamond Bluff	839.6 800.3 -800.6	8/12 - 8/21 8/22 - 9/8	6 12	12,032 22,232	CM2 CM2	2-836.3-RMP 3-799.2-RMT	DN 08-13 DN 08-17	0008 0011	l R
4		Beef Slough	754.0 -754.5	9/9 - 9/26	12	28,652	CM2	4-754.0-LWP	DIN 00-17	0011	R
4		Teepeeota Point	757.2-757.9	9/29 - 10/16	12	27,686	CM2	4-754.0-LWP		0010	R
		roopeosta r omit	707.2 707.0	0,20 10,10		21,000	02				
							CH				
		Currently Dredging						Cat. Codes:	E = Emergen		
	L	Predging Complete							I = Imminent R = Routine I		
Total di	ıanti	ities scheduled by equipment:									
Total qu	ıanti	ities scheduled by equipment: Gover		- GOETZ (GZ) =		256,970				99	
Total q	ıanti	Gover Governme	rnment Hydraulic ent Hydraulic - Dl	JBUQUE (DQ) =		256,970 0		Scheduled	519,290		
Total q	ıanti	Gover	nment Hydraulic ent Hydraulic - Dl hanical - HAUSE	JBUQUE (DQ) = R/WADE (GM) =				Unscheduled	519,290 509,047		
Total q	uanti	Gover Governme	nment Hydraulic ent Hydraulic - Dl hanical - HAUSE Contract H	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) =		8,980 0			519,290		
Total q	uanti	Gover Governme	rnment Hydraulic ent Hydraulic - DI hanical - HAUSE Contract H Contract Med	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) =		0 8,980 0 109,532		Unscheduled	519,290 509,047	-	
Total q	uanti	Gover Governme	rnment Hydraulic ent Hydraulic - DI hanical - HAUSE Contract H Contract Mec Contract Mech	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = nanical - (CM2) =		0 8,980 0 109,532 143,808		Unscheduled	519,290 509,047		
Total qu	uanti	Government Mec	rnment Hydraulic ent Hydraulic - DI hanical - HAUSE Contract H Contract Mech Contract Mech Contract Mech	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) =		0 8,980 0 109,532		Unscheduled	519,290 509,047		
Total q	uanti	Government Mec	rnment Hydraulic ent Hydraulic - DI hanical - HAUSE Contract H Contract Mech Contract Mech Contract Mech I Scheduled Drec	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =		0 8,980 0 109,532 143,808 0 519,290		Unscheduled	519,290 509,047		
Total qu	uanti	Government Mec	rnment Hydraulic ent Hydraulic - DI hanical - HAUSE Contract H Contract Mech Contract Mech Contract Mech I Scheduled Drec	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM2) = hanical - (CM3) =	uled D	0 8,980 0 109,532 143,808 0 519,290		Unscheduled	519,290 509,047		
	uanti	Gover Government Mec Tota	rnment Hydraulic - Dt ent Hydraulic - Dt hanical - HAUSE Contract H Contract Meci Contract Meci Contract Meci I Scheduled Drec	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	uled D	0 8,980 0 109,532 143,808 0 519,290 redging Jobs	Equip	Unscheduled TOTAL	519,290 509,047		Cat
Pool	uanti	Gover Government Mec Tota Dredge Cut Name	rnment Hydraulic - Dt ent Hydraulic - Dt hanical - HAUSE Contract Hec Contract Mec Contract Mec Contract Mec I Scheduled Drec River Mile	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	uled D	8,980 0 109,532 143,808 0 519,290 redging Jobs apth & Est. Quantity	Equip.	Unscheduled TOTAL Placement Site	519,290 509,047		Cat.
Pool	uanti	Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar	rnment Hydraulic - Di hanical - HAUSE Contract F Contract Mech Contract Mech Contract Mech I Scheduled Drec River Mile	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	uled De	0 8,980 0 109,532 143,808 0 519,290 redging Jobs epth & Est. Quantity 5,191	CM	Unscheduled TOTAL Placement Site MN-14.1-RMP	519,290 509,047		R
Pool	uanti	Gover Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin	rnment Hydraulic - DI hanical - HAUSE Contract Hec Contract Mec Contract Mecl Contract Mecl I Scheduled Drec River Mile 11.8 -12.4 856.8-857.6	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	uled D	0 8,980 0 109,532 143,808 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120		Unscheduled TOTAL Placement Site	519,290 509,047		
Pool MN SAF	Janti	Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar	rnment Hydraulic - Di hanical - HAUSE Contract F Contract Mech Contract Mech Contract Mech I Scheduled Drec River Mile	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	De 11 12	0 8,980 0 109,532 143,808 0 519,290 redging Jobs epth & Est. Quantity 5,191	CM CM	Unscheduled TOTAL Placement Site MN-14.1-RMP U-856.6-RMP	519,290 509,047		R R
Pool MN SAF SAF SAF	Janti	Gover Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Bellow Lowry Ave. Bridge Above Broadway Ave. Bridge	rnment Hydraulic ent Hydraulic - Di Hanical - HAUSE Contract Heccontract Meccontract Meccontract Meclor I Scheduled Drecontract Mechol I Scheduled Drecontr	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12	0 8,980 0 109,532 143,808 0 519,290 redging Jobs epth & Est. Quantity 5,191 31,120 19,303 7,574 6,498	CM CM CM CM	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP	519,290 509,047		R R R R
Pool MN SAF SAF SAF SAF SAF	uanti	Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge	rnment Hydraulic - Di hanical - HAUSE Contract Hec Contract Mech Contract Mech Contract Mech I Scheduled Drec River Mile 11.8 -12.4 856.8-857.6 856.4 - 856.8 856.0 - 856.4 855.0 - 855.5	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12	0 8,980 0 109,532 143,808 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257	CM CM CM CM CM	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP	519,290 509,047		R R R R R
Pool MN SAF SAF SAF SAF SAF	Janti	Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Pranklin Ave. Bridge Above Franklin Ave. Bridge	rment Hydraulic - DI hanical - HAUSE Contract HC Contract Mech Contract Mech Contract Mech I Scheduled Drec River Mile 11.8 -12.4 856.8-857.6 856.4 -856.3 -856.1 855.5 -855.5 851.6 -853.1	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12	0 8,980 0 109,532 143,808 519,290 redging Jobs epth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505	CM CM CM CM CM CM	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.3-2-LMP	519,290 509,047		R R R R R
Pool MN SAF SAF SAF SAF 1	Janti	Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Plymouth Ave. Bridge Above Pranklin Ave. Bridge Below Franklin Ave. Bridge Below Franklin Ave. Bridge	rnment Hydraulic - DI hanical - HAUSE Contract Hec Contract Mec Contract Mech I Scheduled Drec River Mile 11.8 -12.4 856.8-857.6 856.4 - 856.4 855.3 - 856.1 855.0 - 855.5 851.6 - 855.1 850.1 850.7 - 851.4	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12	0 8,980 0 109,532 143,808 0 519,290 redging Jobs epth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867	CM CM CM CM CM CM CM	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.3-2-LMP 1-853.2-LMP	519,290 509,047		R R R R R R R
Pool MN SAF SAF SAF SAF 1 1 1	Janti	Gover Government Mec Government Mec Government Mec Tota Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Plymouth Ave. Bridge Above Pranklin Ave. Bridge Above Franklin Ave. Bridge St. Paul Daymark	rment Hydraulic - DI hanical - HAUSE Contract Hec Contract Mec Contract Mecl Contract Mecl I Scheduled Drec River Mile 11.8 -12.4 856.8-857.6 856.4 - 856.8 856.0 - 856.4 855.3 - 856.1 855.0 - 855.5 851.6 - 853.1 850.7 - 881.4 848.5 - 848.9	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12	0 8,980 0 109,532 143,808 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928	CM CM CM CM CM CM CM CM	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP 1-853.2-LMP 1-853.2-LMP 1-853.2-LMP	519,290 509,047		R R R R R R R R R
Pool MN SAF SAF SAF SAF 1 1 1	Janti	Government Mec Government Mec Government Mec Tota Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Franklin Ave. Bridge St. Paul Daymark Upper Approach to L/D 1	Promett Hydraulic - Ditanical - HAUSE Contract Heck Contract Meck Contract Meck Contract Meck I Scheduled Dreck I Scheduled Dreck I Scheduled Dreck River Mile 11.8 -12.4 856.8-857.6 856.4 856.3 856.1 856.4 855.3 856.1 856.4 855.3 856.1 850.7 851.6 853.1 850.7 851.4 848.5 848.9 847.7 848.4	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	0 8,980 0 109,532 143,808 0 519,290 redging Jobs epth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783	CM CM CM CM CM CM CM CM CM CM	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.3-2-LMP 1-853.2-LMP 1-853.2-LMP 1-853.2-LMP	519,290 509,047		R R R R R R R R R R
Pool MN SAF SAF SAF SAF 1 1 1 1 2	Janti	Gover Government Mec Government Mec Government Mec Government Mec Total Total Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowny Ave. Bridge Below Lowy Ave. Bridge Above Broadway Ave. Bridge Above Broadway Ave. Bridge Above Franklin Ave. Bridge Below Franklin Ave. Bridge Below Franklin Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough	rmment Hydraulic - DI hanical - HAUSE Contract Heck Contract Meck Contract Meck I Scheduled Dreck I Scheduled I Schedule	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12	0 8,980 0 109,532 143,808 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140	CM CM CM CM CM CM CM CM CM CM	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-853.2-LMP 1-853.2-LMP 1-853.2-LMP 1-853.2-LMP 2-827.5-RMT	519,290 509,047		R R R R R R R R R R R
Pool MN SAF SAF SAF SAF 1 1 1 1 2 2	Janti	Gover Government Mec Government Mec Government Mec Government Mec Total Total Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Proadway Ave. Bridge Above Proadway Ave. Bridge Above Proadway Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing	rment Hydraulic - DI hanical - HAUSE Contract Hec Contract Mech Contract Mech Contract Mech I Scheduled Drec 11.8 -12.4 856.8-857.6 856.4 - 856.4 - 856.4 - 855.3 - 856.1 855.0 - 855.5 851.6 - 853.1 850.7 - 851.4 848.5 - 848.9 847.7 - 848.4 827.5 - 828.3 824.3 - 824.6	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596	CM CM CM CM CM CM CM CM CM CM CM	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-853.2-LMP 1-853.2-LMP 1-853.2-LMP 1-853.2-LMP 1-853.2-LMP 1-853.2-LMP 1-853.3-LMP	519,290 509,047		R R R R R R R R R R R R R
Pool MN SAF SAF SAF SAF 1 1 1 2 2 2	Janti	Government Mec Government Mec Government Mec Tota Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Franklin Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Landing Pine Bend	Proment Hydraulic - DI hanical - HAUSE Contract Heck Contract Meck Contract Meck Contract Meck I Scheduled Dreck I Scheduled I Sched	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12	8,980 0 109,532 143,808 0 519,290 redging Jobs apth & Est. Quantity 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989	CM CM CM CM CM CM CM CM CM CM CM	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-853.2-LMP 1-853.2-LMP 1-853.2-LMP 1-853.2-LMP 2-827.5-RMT	519,290 509,047		R R R R R R R R R R R
Pool MN SAF SAF SAF 1 1 1 1 2 2	Janti	Gover Government Mec Government Mec Government Mec Government Mec Total Total Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Proadway Ave. Bridge Above Proadway Ave. Bridge Above Proadway Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing	rment Hydraulic - DI hanical - HAUSE Contract Hec Contract Mech Contract Mech Contract Mech I Scheduled Drec 11.8 -12.4 856.8-857.6 856.4 - 856.4 - 856.4 - 855.3 - 856.1 855.0 - 855.5 851.6 - 853.1 850.7 - 851.4 848.5 - 848.9 847.7 - 848.4 827.5 - 828.3 824.3 - 824.6	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596	CM CM CM CM CM CM CM CM CM CM CM	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-853.2-LMP 1-853.2-LMP 1-853.2-LMP 1-853.2-LMP 2-823.8-LMT 2-823.8-LMT	519,290 509,047		R R R R R R R R R R R R R R
Pool MN SAF SAF SAF 1 1 1 2 2 2 2	Janti	Government Mec Government Mec Government Mec Tota Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Pranklin Ave. Bridge Below Franklin Ave. Bridge Below Franklin Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Boulanger Bend	rmment Hydraulic - DI hanical - HAUSE Contract Heck Contract Meck Contract Meck I Scheduled Dreck I Scheduled I Schedule	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	0 8,980 0 109,532 143,808 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 9,989	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-853.2-LMP 1-853.2-LMP 1-853.3-LMT 1-823.8-LMT 1-823.8-LMT 1-823.8-LMT 1-821.1-LWT	519,290 509,047		R R R R R R R R R R R R R R R
Pool MN SAF SAF SAF 1 1 1 2 2 2 2 3 4	Janti	Government Mec Government Mec Government Mec Government Mec Tota Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Above Broadway Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Franklin Ave. Bridge Below Lowry Ave. Bridge Below Lanklin Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Boulanger Bend Boulanger Bend Boulanger Bend Boulanger Bend Lower Light Above Coulters Chippewa	rmment Hydraulic - DI hanical - HAUSE Contract Heck Contract Meck Contract Meck I Scheduled Dreck I Scheduled I Sc	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	0 8,980 0 109,532 143,808 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 5,443 200,000	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-853.2-LMP 1-853.2-LMP 1-853.1-LWT 1-821.1-LWT 1-821.1-LWT 1-821.1-LWT 1-821.1-LWT	519,290 509,047		**************************************
Pool MN SAF SAF SAF 1 1 1 2 2 2 2 3 4 5	Janti	Tota Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Franklin Ave. Bridge Delow Franklin Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Boulanger Bend Boulanger Bend Boulanger Bend Lower Light Above Coulters Chippewa Upper Zumbro	River Mile 11.8 -12.4 856.8 -857.6 856.4 - 856.4 855.0 - 856.4 855.3 - 856.1 855.7 - 851.4 848.5 - 848.9 847.7 - 848.4 827.5 - 828.3 824.3 - 824.6 822.7 - 823.7 820.7 - 821.4 819.0 - 819.8 802.2 - 802.4 762.6 - 763.8 749.4 - 750.0	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 5,443 200,000 3,969	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP 1-853.2-LMP 1-853.2-LMT 1-8	519,290 509,047		**************************************
Pool MN SAF SAF SAF SAF 1 1 1 2 2 2 2 2 3 4 5 5	Janti	Government Mec Government Mec Government Mec Government Mec Tota Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Pranklin Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Landing Pine Bend Boulanger Bend Boulanger Bend Lower Light Above Coulters Chippewa Upper Zumbro Mule Bend	Proment Hydraulic - Di hanical - HAUSE Contract Mech Contract Mech Contract Mech Contract Mech I Scheduled Drec River Mile 11.8 -12.4 856.8-857.6 856.4 856.3 856.1 856.4 856.3 856.1 856.4 855.3 856.1 850.7 851.6 855.5 851.6 853.1 850.7 851.4 848.5 848.9 827.7 821.4 848.5 828.3 824.	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 8,783 8,140 2,596 9,989 12,174 50,406 5,443 200,000 3,969 8,137	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-853.2-LMP 1-853.2-LMP 1-8	519,290 509,047		
Pool MN SAF SAF SAF 1 1 1 2 2 2 2 3 4 5 5	Janti	Government Mec Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Pranklin Ave. Bridge Below Lowry Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Boulanger Bend Lower Light Above Coulters Chippewa Upper Zumbro Mule Bend West Newton	mment Hydraulic - DI hanical - HAUSE Contract Heck Contract Meck Contract Meck I Scheduled Dreck I Scheduled	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 0 1109,532 143,808 0 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 5,443 200,000 3,969 8,137 7,445	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-853.2-LMP 1-853.2-LMP 1-8	519,290 509,047		**************************************
Pool MN SAF SAF SAF SAF 1 1 2 2 2 2 3 4 5 5 5	Janti	Gover Government Mec Government G	rement Hydraulic - Di hanical - HAUSE Contract Mech Contract Mech Contract Mech I Scheduled Dreck I Scheduled I Sc	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 0 1109,532 143,808 0 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 5,443 200,000 3,969 8,137 7,445 4,899	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP 1-853.2-LMP 1-8	519,290 509,047		R R R R R R R R R R R R R R R R R R R
Pool MN SAF SAF SAF SAF 1 1 1 2 2 2 2 3 4 5 5 5 5 5 5 5 5 6	Janti	Government Mec Government Mec Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Pranklin Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Landing Pine Bend Lower Light Above Coulters Chippewa Upper Zumbro Mule Bend West Newton Below West Newton Wilds Bend	Proment Hydraulic - Di hanical - HAUSE Contract Mech Contract Mech Contract Mech Contract Mech I Scheduled Drec River Mile 11.8 -12.4 856.8-857.6 856.4 856.3 856.1 856.4 856.3 856.1 856.4 855.3 856.1 850.7 851.6 853.1 850.7 851.6 853.1 850.7 851.4 848.5 848.9 827.7 821.4 847.5 828.3 824.3 824.3 824.3 824.6 827.7 821.4 819.0 - 819.8 802.2 802.4 762.6 763.8 749.4 750.0 748.6 749.6 746.8 730.2 730.7	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 5,443 200,000 8,137 7,445 4,899 12,731	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.3-LMP 1-853.2-LMP 1-8	519,290 509,047		R R R R R R R R R R R R R R R R R R R
Pool MN SAF SAF SAF 1 1 1 2 2 2 2 3 4 5 5 5 6	Janti	Government Mec Government Mec Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Broadway Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Pranklin Ave. Bridge Below Lowry Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Boulanger Bend Boulanger Bend Boulanger Bend Boulanger Bend Boulanger Send West Newton Below West Newton Wilds Bend West Newton Below West Newton Wilds Bend Gravel Point	mment Hydraulic - DI hanical - HAUSE Contract Heck Contract Meck Contract Meck I Scheduled Dreck I Scheduled	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 0 109,532 143,808 0 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 5,443 200,000 3,969 12,174 4,43 200,000 3,969 12,731 12,397	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-853.2-LMP 1-853.2-LMP 1-8	519,290 509,047		R R R R R R R R R R R R R R R R R R R
Pool MN SAF SAF SAF 1 1 1 2 2 2 3 4 5 5 5 6 6	Janti	Total Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Pymouth Ave. Bridge Above Pranklin Ave. Bridge Below Franklin Ave. Bridge Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Boulanger Bend Lower Light Above Coulters Chippewa Upper Zumbro Mule Bend West Newton Below West Newton Wilds Bend Gravel Point Below Winona RR Bridge	mment Hydraulic - DI hanical - HAUSE Contract Mech Contract Mech Contract Mech I Scheduled Dreck I Sch	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 0 1109,532 143,808 0 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 5,443 200,000 3,969 8,137 7,445 4,899 12,731 12,397 11,128	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP 1-853.2-LMP 1-8	519,290 509,047		R R R R R R R R R R R R R R R R R R R
Pool MN SAF SAF SAF 1 1 1 2 2 2 2 3 4 5 5 5 5 6	Janti	Government Mec Government Mec Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Broadway Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Pranklin Ave. Bridge Below Lowry Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Boulanger Bend Boulanger Bend Boulanger Bend Boulanger Bend Boulanger Send West Newton Below West Newton Wilds Bend West Newton Below West Newton Wilds Bend Gravel Point	mment Hydraulic - DI hanical - HAUSE Contract Heck Contract Meck Contract Meck I Scheduled Dreck I Scheduled	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 0 109,532 143,808 0 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 5,443 200,000 3,969 12,174 4,43 200,000 3,969 12,731 12,397	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-853.2-LMP 1-853.2-LMP 1-8	519,290 509,047		R R R R R R R R R R R R R R R R R R R
Pool MN SAF SAF SAF SAF 1 1 1 1 2 2 2 2 3 4 5 5 5 5 6 6 6 6 6 6	Janti	Government Mec Government Mec Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Lowry Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Pranklin Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Landing Pine Bend Lower Light Above Coulters Chippewa Upper Zumbro Mule Bend West Newton Below West Newton Wilds Bend Gravel Point Below Winona RR Bridge Blacksmith Slough	Proment Hydraulic on Hydraulic - Di Hanical - HAUSE Contract Heck Contract Meck Contract Meck Contract Meck Contract Meck I Scheduled Dreck Bishop - Scheduled Bishop -	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 0 109,532 143,808 0 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 5,443 200,000 3,969 8,137 7,445 4,899 12,731 12,397 11,128 11,627	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP 1-853.2-LMP 1-8	519,290 509,047		R R R R R R R R R R R R R R R R R R R
Pool MN SAF SAF SAF 1 1 1 2 2 2 2 3 4 5 5 5 6 6 6 7	Janti	Government Mec Government Mec Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Broadway Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Plymouth Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Boulanger Bend Lower Light Above Coulters Chippewa Upper Zumbro Mule Bend West Newton Below West Newton Wilds Bend Gravel Point Below Winona RR Bridge Blacksmith Slough Lower Approach L/D 6	mment Hydraulic - DI hanical - HAUSE Contract Mech Contract Mech Contract Mech I Scheduled Dreck I Sch	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 0 109,532 143,808 0 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 50,406 50,403 8,137 7,445 4,899 12,731 12,397 11,128 11,627 4,978	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.3-2-LMP 1-853.2-LMP 1	519,290 509,047		R R R R R R R R R R R R R R R R R R R
Pool MN SAF SAF SAF SAF 1 1 1 2 2 2 2 3 4 4 5 5 5 5 5 6 6 6 6 6 7	Janti	Government Mec Government Mec Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Broadway Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Plymouth Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Boulanger Bend Lower Light Above Coulters Chippewa Upper Zumbro Mule Bend West Newton Below West Newton Wilds Bend Gravel Point Below Winona RR Bridge Blacksmith Slough Lower Approach L/D 6	mment Hydraulic - DI hanical - HAUSE Contract Mech Contract Mech Contract Mech I Scheduled Dreck I Sch	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 0 109,532 143,808 0 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 50,406 50,403 8,137 7,445 4,899 12,731 12,397 11,128 11,627 4,978	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.3-2-LMP 1-853.2-LMP 1	519,290 509,047		R R R R R R R R R R R R R R R R R R R
Pool MN SAF SAF SAF SAF 1 1 1 2 2 2 2 3 4 4 5 5 5 5 5 6 6 6 6 6 7	Janti	Government Mec Government Mec Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Broadway Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Plymouth Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Boulanger Bend Lower Light Above Coulters Chippewa Upper Zumbro Mule Bend West Newton Below West Newton Wilds Bend Gravel Point Below Winona RR Bridge Blacksmith Slough Lower Approach L/D 6	mment Hydraulic - DI hanical - HAUSE Contract Mech Contract Mech Contract Mech I Scheduled Dreck I Sch	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 0 109,532 143,808 0 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 50,406 50,403 8,137 7,445 4,899 12,731 12,397 11,128 11,627 4,978	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.3-2-LMP 1-853.2-LMP 1	519,290 509,047		R R R R R R R R R R R R R R R R R R R
Pool MN SAF SAF SAF SAF 1 1 1 2 2 2 2 3 4 4 5 5 5 5 5 6 6 6 6 6 7	Janti	Government Mec Government Mec Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Broadway Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Plymouth Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Boulanger Bend Lower Light Above Coulters Chippewa Upper Zumbro Mule Bend West Newton Below West Newton Wilds Bend Gravel Point Below Winona RR Bridge Blacksmith Slough Lower Approach L/D 6	mment Hydraulic - DI hanical - HAUSE Contract Mech Contract Mech Contract Mech I Scheduled Dreck I Sch	JBUQUE (DQ) = R/WADE (GM) = Hydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = hanical - (CM3) = lging Quantities =	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 0 109,532 143,808 0 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 50,406 50,403 8,137 7,445 4,899 12,731 12,397 11,128 11,627 4,978	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.3-2-LMP 1-853.2-LMP 1	519,290 509,047		R R R R R R R R R R R R R R R R R R R
Pool MN SAF SAF SAF SAF 1 1 1 2 2 2 2 2 3 4 4 5 5 5 5 5 6 6 6 6 6 7	Janti	Government Mec Government Mec Government Mec Government Mec Government Mec Tota Dredge Cut Name Peterson's Bar Mpls. Turning Basin Above Broadway Ave. Bridge Below Lowry Ave. Bridge Above Broadway Ave. Bridge Above Plymouth Ave. Bridge Above Plymouth Ave. Bridge St. Paul Daymark Upper Approach to L/D 1 Grey Cloud Slough Pine Bend Landing Pine Bend Boulanger Bend Lower Light Above Coulters Chippewa Upper Zumbro Mule Bend West Newton Below West Newton Wilds Bend Gravel Point Below Winona RR Bridge Blacksmith Slough Lower Approach L/D 6	mment Hydraulic - DI hanical - HAUSE Contract Heck Contract Meck Contract Meck I Scheduled Dreck I Scheduled	JBUQUE (DQ) = RWADE (GM) = Rydraulic - (CH) = hanical - (CM1) = hanical - (CM2) = lging Quantities = stential Unsched	11 12 12 12 12 12 12 12 12 12 12 12 12 1	8,980 0 109,532 143,808 0 0 109,532 143,808 0 0 519,290 redging Jobs spth & Est. Quantity 5,191 31,120 19,303 7,574 6,498 10,257 16,505 21,867 10,928 8,783 8,140 2,596 9,989 12,174 50,406 50,406 50,403 8,137 7,445 4,899 12,731 12,397 11,128 11,627 4,978	CM CM CM CM CM CM CM CM CM CM CM CM CM C	Placement Site MN-14.1-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.6-RMP U-856.3-2-LMP 1-853.2-LMP 1	519,290 509,047		R R R R R R R R R R R R R R R R R R R

Job Name/Description s 112 Rock Structure - Relocate notch downstream Sand Berm along Is. 112 (LP2 CMS) - Cower Pool 4 CMS - Cool 8 Is. 116 - Dredging Behind Closure Structure - Secondary Channel (LP2 CMS) - Notch 31 Wing Dams (LP2 CMS) - Crosby Slough Protection (P8 CMS) - Crosby Slough Protection (P8 CMS) - Mooring Buoy - Cargill East River - Southport - Crats Island - Bank Stabilization - Feepeeota Island - Unloading - Feepeeota Island - Unloading - Feepeeota Island - Lot Embankment - D 4 Embankment - Rock Groins - West Newton Chute - Lost Island - Above Brownsville - Unloading	Work Type (see Key) SM DR OT DR EX SMWD CL/BS SMWD OT RE OT BS EX EX BS DR RE	River Mile(s) Scheduled 827.5R 827.5R 827.5R 690.2R Potential 1 826.7R NA 690.3L 690.2L 687.8R Scheduled 14.1R 759.3L 757.5L 752.8	## PLACEMENT Work Dates Channel Manage Aug/Sep 2008 2008 July 2008 Channel Manage 2009 2009 2009 2009 2009 2009 2008 Ided Placement S 19 May - 02 Jun Sep - Oct Aug - Nov 08	Approximate Construction Time lement Activities I day ement Activities I week I week I week Living I	Equip ities MR CT MR ties MR MR MR	Cubic Yards Dredged 8,140 200 5,000 11,000	Rock (Tons)	Comments/Job Notes Pending design, OSIT, & MnDNR permit. Dredging from Grey Cloud Slough c-placed along shoreline. EC-H working on models for LP4 islands. OSIT held 5/30/07. Pending EA & signed FONSI. Pending Design, MnDNR permits. Work funded via NESP. Pending Design, MnDNR permits. Work funded via NESP. OSIT held 5/30/07. Design pending OSIT held 5/30/07. Design pending Under to LD (from 678.3R). Pending updated E/ Constructed perimeter berm and we access location. OSIT held on 6/3. RFP sent to 8A contractor with a
s 112 Rock Structure - Relocate notch downstream Sand Berm along Is. 112 (LP2 JMS) Lower Pool 4 CMS Pool 8 Is. 116 - Dredging Behind Pools 1s. 116 - Dredging Behind Pools 1s. 116 - Dredging Behind Pool 8 Is. 116 - Dredging Behind	SM DR OT DR EX SMWD OT SMWD OT BS EX EX BS DR	River Mile(s) Scheduled 827.5R 827.5R 827.5R 827.5R 827.5R 826.7R 826.7R NA 690.3L 690.2L 687.8R Scheduled 14.1R 759.3L 757.5L 757.5L 752.8 827.8R 752.8 827.8R 752.8	Aug/Sep 2008 2008 July 2008 Channel Manage 2009 2009 2009 2009 2009 2008 Ided Placement S 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 day ment Activities 1 week 1 week 1 week 2 weeks	MR CT MR ties MR MR MR MR MR MR MR MR	8,140 200 5,000	1,000	Pending design, OSIT, & MnDNR permit. Dredging from Grey Cloud Slough c-placed along shoreline. EC-H working on models for LP4 islands. OSIT held 5/30/07. Pending EA & signed FONSI. Pending Design, MnDNR permits. Work funded via NESP. Pending Design, MnDNR permits. Work funded via NESP. OSIT held 5/30/07. Design pending OSIT held 5/30/07. Design pending Modify and move bucy closer to LD (from 678.3R). Pending updated E/
notch downstream Sand Berm along Is. 112 (LP2 JMS) Lower Pool 4 CMS Pool 8 Is. 116 - Dredging Behind Closure Structure Secondary Channel (LP2 CMS) Notch 31 Wing Dams (LP2 CMS) Crosby Slough Protection (P8 JMS) Raise & Extend 3 Wing Dams P8 CMS) Mooring Bucy Largill East River Southport Crats Island - Bank Stabilization Feepeeota Island'- Unloading Feepeeota Island'- Unloading Feepeeota Island'- Rock Groins West Newton Chute Lost Island	DR OT DR EX SM/WD CL/BS SM/WD OT RE OT BS EX EX BS DR	827.5R 827.5R 827.5R 690.2R Potential 1 826.7R NA 690.3L 690.2L 687.8R Schedu 14.1R 759.3L 757.5L 757.5L	2008 July 2008 Channel Manage 2009 2009 2009 2009 2008 Ided Placement S 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 day ement Activi 1 week 1 week 1 week Site Activities	MR CT MR ties MR MR MR MR MR MR	5,000		permit. Dredging from Grey Cloud Slough c-placed along shoreline. EC-H working on models for LP4 islands. OSIT held 5/30/07. Pending EA & signed FONSI. Pending Design, MnDNR permits. Work funded via NESP. Pending Design, MnDNR permits. Work funded via NESP. OSIT held 5/30/07. Design pending OSIT held 5/30/07. Design pending Modify and move buoy closer to LD (trom 678.3R). Pending updated EA Constructed perimeter berm and we access location. OSIT held on 6/3.
notch downstream Sand Berm along Is. 112 (LP2 JMS) Lower Pool 4 CMS Pool 8 Is. 116 - Dredging Behind Closure Structure Secondary Channel (LP2 CMS) Notch 31 Wing Dams (LP2 CMS) Crosby Slough Protection (P8 JMS) Raise & Extend 3 Wing Dams P8 CMS) Mooring Bucy Largill East River Southport Crats Island - Bank Stabilization Feepeeota Island'- Unloading Feepeeota Island'- Unloading Feepeeota Island'- Rock Groins West Newton Chute Lost Island	DR OT DR EX SM/WD CL/BS SM/WD OT RE OT BS EX EX BS DR	827.5R 690.2R Potential 1 826.7R NA 690.3L 690.2L 687.8R Schedu 14.1R 759.3L 757.5L 752.8	2008 July 2008 Channel Manage 2009 2009 2009 2009 2008 Iled Placement \$ 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 week 1 week 1 week 2 weeks	MR ties MR MR MR MR MR MR MR	5,000		permit. Dredging from Grey Cloud Slough c-placed along shoreline. EC-H working on models for LP4 islands. OSIT held 5/30/07. Pending EA & signed FONSI. Pending Design, MnDNR permits. Work funded via NESP. Pending Design, MnDNR permits. Work funded via NESP. OSIT held 5/30/07. Design pending OSIT held 5/30/07. Design pending Modify and move buoy closer to LD (trom 678.3R). Pending updated EA Constructed perimeter berm and we access location. OSIT held on 6/3.
OMS) Lower Pool 4 CMS Pool 8 Is. 116 - Dredging Behind Closure Structure Secondary Channel (LP2 CMS) Notch 31 Wing Dams (LP2 CMS) Trosby Slough Protection (P8 DMS) Raise & Extend 3 Wing Dams P8 CMS) Mooring Buoy Cargill East River Southport Crats Island - Bank Stabilization Teepeeota Island - Unloading Teepeeota Island - Unloading Teepeeota Island - Rock Groins West Newton Chute Lost Island	OT DR EX SM/WD CL/BS SM/WD OT RE OT BS EX EX BS DR	690.2R Potential 826.7R NA 690.3L 690.2L 687.8R Schedu 14.1R 759.3L 757.5L 752.8	2009 2009 2009 2009 2009 2008 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 week 1 week 1 week 2 weeks	MR ties MR MR MR MR MR MR	5,000		- placed along shoreline. EC-H working on models for LP4 islands. OSIT held 5/30/07. Pending EA & signed FONSI. Pending Design, MnDNR permits. Work funded via NESP. Pending Design, MnDNR permits. Work funded via NESP. OSIT held 5/30/07. Design pending Modify and move buoy closer to LD (trom 678.3R). Pending updated E/ Constructed perimeter berm and we access location. OSIT held of 6/3.
Pool 8 Is. 116 - Dredging Behind Closure Structure Secondary Channel (LP2 CMS) Notch 31 Wing Dams (LP2 CMS) Trosby Slough Protection (P8 CMS) Raise & Extend 3 Wing Dams P8 CMS) Mooring Buoy Cargiil East River Southport Crats Island - Bank Stabilization Feepeeota Island - Unloading Feepeeota Island - Unloading Feepeeota Island - Rock Groins West Newton Chute Lost Island	EX SM/WD CL/BS SM/WD OT RE OT BS EX EX BS DR	Potential 1 826.7R NA 690.3L 690.2L 687.8R Schedu 14.1R 759.3L 757.5L 752.8	2009 2009 2009 2009 2008 Ided Placement \$ 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 week 1 week 1 week 2 weeks	MR MR MR MR MR MR MR	5,000		islands. OSIT held 5/30/07. Pending EA & signed FONSI. Pending Design, MnDNR permits. Work funded via NESP. Pending Design, MnDNR permits. Work funded via NESP. OSIT held 5/30/07. Design pending OSIT held 5/30/07. Design pending Modify and move buoy closer to LD (from 678.3R). Pending updated E. Constructed perimeter berm and we access location. OSIT held of 6/3.
Pool 8 Is. 116 - Dredging Behind Closure Structure Secondary Channel (LP2 CMS) Notch 31 Wing Dams (LP2 CMS) Trosby Slough Protection (P8 CMS) Raise & Extend 3 Wing Dams P8 CMS) Mooring Buoy Cargiil East River Southport Crats Island - Bank Stabilization Feepeeota Island - Unloading Feepeeota Island - Unloading Feepeeota Island - Rock Groins West Newton Chute Lost Island	EX SM/WD CL/BS SM/WD OT RE OT BS EX EX BS DR	Potential 1 826.7R NA 690.3L 690.2L 687.8R Schedu 14.1R 759.3L 757.5L 752.8	2009 2009 2009 2009 2008 Ided Placement \$ 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 week 1 week 1 week 2 weeks	MR MR MR MR MR MR MR	5,000		OSIT held 5/30/07. Pending EA & signed FONSI. Pending Design, MnDNR permits. Work funded via NESP. Pending Design, MnDNR permits. Work funded via NESP. OSIT held 5/30/07. Design pending Modify and move buoy closer to LD (trom 678.3R). Pending updated E. Constructed perimeter berm and we access location. OSIT held of 6/3.
Secondary Channel (LP2 CMS) Notch 31 Wing Dams (LP2 CMS) Crosby Slough Protection (P8 CMS) Natise & Extend 3 Wing Dams P8 CMS) Mooring Buoy Cargill East River Southport Crats Island - Bank Stabilization Teepeeota Island - Unloading Teepeeota Island/LD4 Embankment LD 4 Embankment - Rock Groins West Newton Chute Lost Island	EX SMWD CL/BS SMWD OT RE OT BS EX EX EX BS DR	Potential 1 826.7R NA 690.3L 690.2L 687.8R Schedu 14.1R 759.3L 757.5L 752.8	2009 2009 2009 2009 2008 Ided Placement \$ 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 week 1 week 1 week 2 weeks	MR MR MR MR MR MR MR	5,000		Pending Design, MnDNR permits. Work funded via NESP. Pending Design, MnDNR permits. Work funded via NESP. OSIT held 5/30/07. Design pending Modify and move buoy closer to LD (from 678.3R). Pending updated E. Constructed perimeter berm and we access location. OSIT held on 6/3.
Notch 31 Wing Dams (LP2 CMS) Crosby Slough Protection (P8 CMS) Crosby Slough Protection (P8 CMS) Mooring Buoy Mooring Buoy Cargill East River Southport Crats Island - Bank Stabilization Teepeeota Island - Unloading Teepeeota Island - Unloading Teepeeota Island/LD4 Embankment LD 4 Embankment - Rock Groins West Newton Chute Lost Island	SM/WD CL/BS SM/WD OT RE OT BS EX EX BS DR	826.7R NA 690.3L 690.2L 687.8R Schedu 14.1R 759.3L 757.5L 752.8	2009 2009 2009 2008 2008 Iled Placement \$ 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 week 1 week 1 week Site Activitie 2 weeks	MR MR MR MR MR MR			Work funded via NESP. Pending Design, MnDNR permits. Work funded via NESP. OSIT held 5/30/07. Design pending OSIT held 5/30/07. Design pending Modify and move buoy closer to LD (from 678.3R). Pending updated E Constructed perimeter berm and wa access location. OSIT held on 6/3.
Notch 31 Wing Dams (LP2 CMS) Crosby Slough Protection (P8 CMS) Crosby Slough Protection (P8 CMS) Mooring Buoy Mooring Buoy Cargill East River Southport Crats Island - Bank Stabilization Teepeeota Island - Unloading Teepeeota Island - Unloading Teepeeota Island/LD4 Embankment LD 4 Embankment - Rock Groins West Newton Chute Lost Island	SM/WD CL/BS SM/WD OT RE OT BS EX EX BS DR	NA 690.3L 690.2L 687.8R Schedu 14.1R 759.3L 757.5L 752.8	2009 2009 2008 10d Placement \$ 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 week 1 week Site Activitie 2 weeks	MR MR MR MR MR			Pending Design, MnDNR permits. Work funded via NESP. OSIT held 5/30/07. Design pending. OSIT held 5/30/07. Design pending. Modify and move buoy closer to LD (from 678.3R). Pending updated E. Constructed perimeter berm and waccess location. OSIT held on 6/3.
Crosby Slough Protection (P8 MS) MS) MS MS P8 CMS) Mooring Buoy Mooring Buoy Cargill East River Southport Crats Island - Bank Stabilization Feepeeota Island - Unloading Feepeeota Island - Unloading Feepeeota Island - Unloading Mest Newton Chute LD 4 Embankment - Rock Groins West Newton Chute Lost Island	CL/BS SM/WD OT RE OT BS EX EX DR	690.3L 690.2L 687.8R Schedu 14.1R 759.3L 757.5L 757.5L	2009 2008 2008 Iled Placement \$ 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 week 1 week Site Activitie 2 weeks	MR MR MR MR	11,000		Work funded via NESP. OSIT held 5/30/07. Design pending OSIT held 5/30/07. Design pending Modify and move buoy closer to LD (from 678.3R). Pending updated E. Constructed perimeter berm and we access location. OSIT held on 6/3.
Carasia & Extend 3 Wing Dams PB CMS) Mooring Buoy Cargill East River Southport Crats Island - Bank Stabilization Teepeeota Island - Unloading Teepeeota Island/LD4 Embankment LD 4 Embankment - Rock Groins West Newton Chute Lost Island	RE OT BS EX EX BS DR	690.2L 687.8R Schedu 14.1R 759.3L 757.5L 757.5L	2009 2008 Iled Placement S 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 week 1 week Site Activitie 2 weeks	MR MR S			OSIT held 5/30/07. Design pendin, Modify and move buoy closer to LD (from 678.3R). Pending updated E. Constructed perimeter berm and wa access location. OSIT held on 6/3.
P8 CMS) Mooring Buoy Cargill East River Southport Crats Island - Bank Stabilization Feepeeota Island - Unloading Feepeeota Island - Unloading Teepeeota Island/LD4 mbankment D 4 Embankment - Rock Groins West Newton Chute Lost Island	OT RE OT BS EX EX DR	759.3L 757.5L	2008 Iled Placement \$ 19 May - 02 Jun Sep - Oct Aug - Nov 08	1 week Site Activities 2 weeks	MR S MR		1,500	Modify and move buoy closer to LD (from 678.3R). Pending updated E Constructed perimeter berm and waccess location. OSIT held on 6/3.
Cargill East River Southport Crats Island - Bank Stabilization Teepeeota Island - Unloading Teepeeota Island/LD4 Embankment LD 4 Embankment - Rock Groins West Newton Chute Lost Island	RE OT BS EX EX BS DR	759.3L 757.5L 752.8	19 May - 02 Jun Sep - Oct Aug - Nov 08	Site Activities 2 weeks	MR			(from 678.3R). Pending updated E Constructed perimeter berm and wa access location. OSIT held on 6/3.
Cargill East River Southport Crats Island - Bank Stabilization Teepeeota Island - Unloading Teepeeota Island/LD4 Embankment LD 4 Embankment - Rock Groins West Newton Chute Lost Island	RE OT BS EX EX BS DR	759.3L 757.5L 752.8	19 May - 02 Jun Sep - Oct Aug - Nov 08	Site Activities 2 weeks	MR			Constructed perimeter berm and waccess location. OSIT held on 6/3.
Crats Island - Bank Stabilization Teepeeota Island - Unloading Teepeeota Island/LD4 Embankment LD 4 Embankment - Rock Groins West Newton Chute Lost Island	BS EX EX BS DR	759.3L 757.5L 757.5L 752.8	Sep - Oct Aug - Nov 08					access location. OSIT held on 6/3.
Crats Island - Bank Stabilization Teepeeota Island - Unloading Teepeeota Island/LD4 Embankment LD 4 Embankment - Rock Groins West Newton Chute Lost Island	BS EX EX BS DR	759.3L 757.5L 757.5L 752.8	Sep - Oct Aug - Nov 08					OSIT held on 6/3.
Crats Island - Bank Stabilization Feepeeota Island - Unloading Feepeeota Island/LD4 mbankment D 4 Embankment - Rock Groins West Newton Chute Lost Island	BS EX EX BS DR	757.5L 757.5L 752.8	Aug - Nov 08	2 weeks	СТ			
Feepeeota Island - Unloading Feepeeota Island/LD4 Finbankment D 4 Embankment - Rock Groins West Newton Chute Lost Island	EX EX BS DR	757.5L 757.5L 752.8	Aug - Nov 08	2 weeks	СТ			INTER cont to 9A contractor with a
Feepeeota Island - Unloading Feepeeota Island/LD4 Finbankment D 4 Embankment - Rock Groins West Newton Chute Lost Island	EX EX BS DR	757.5L 757.5L 752.8	Aug - Nov 08	2 weeks			0000	response date of 9/3. OSIT meetin
Feepeeota Island/LD4 Embankment D 4 Embankment - Rock Groins West Newton Chute cost Island	EX BS DR	757.5L 752.8					3000	scheduled prior to construction. Contract awarded to Matteson.
Embankment D 4 Embankment - Rock Groins West Newton Chute _ost Island	BS DR	752.8	6/23 - 7/28		CT	350,000		Precon scheduled for 9/3 in Winona
D 4 Embankment - Rock Groins West Newton Chute Lost Island	BS DR	752.8	6/23 - 7/28					Sand placement of berms is completed. Quantity being negotiate
West Newton Chute	DR		5,25 1,20		CT/MR	45,000		with contractor. Install interior rock groins to west
ost Island			8/25 - 9/9		MR		1040	berm embankment.
	RE	749.8R	15 - 18 Sep		MR			Dredge access and truck material to site
		744.7L	14-25 Apr	2 weeks	MR			Prepared site for dredging ops.
Above Brownsville - Orlidading	EX				СТ	207,000		Unload material for Pool 8 Ph III St 2B conctract.
		690.4L	2008 - 2009			207,000		
_ansing Hwy Bridge	RE	663.5L	27-29 June		MR			Prepared site for dredging ops.
		Potent	ial Placement S	ite Activities	1			Ti-
Pine Bend	RE	823.8L	2009		MR			Expand to CMMP limits.
_ower Boulanger	RE	821.1L	2009		MR			Prepare site for dredging ops and install drop structure.
Corps Island	EX	799.2R	2010		CT			Contract to unload dredge material. Relocate placement site according
Red Wing Commercial Harbor	IN	791.6	2010		MR			the cities overall plan. HTRW review and railroad tie
Wabasha Gravel Pit	EX	761.0R	2009		СТ			removal.
Reads Landing	RE	762.7L	2009		MR			Prepare site for dredging ops.
Reads Landing - Bank Stabilization	BS	762.7L	2010		СТ		2200	OSIT prior to construction.
-							2200	
Crats Island Feepeeota Island - Bank	RE	759.3L	2009		MR			Prepare site for dredging ops.
Stabilization	BS	757.5L	2009		MR		3500	OSIT prior to construction.
Grand Encampment	RE	756.5L	2009		MR			Prepare site for dredging ops and install drop structure.
Fisher Island - Unloading	EX	745.8R	2009		СТ	750,000		Contract to unload dredge material
-				0		. 50,000		
Lost Island	RÉ	744.7L	2009	2 weeks	MR			Prepare site for dredging ops.
-ountain City	RE	731.9L	2009		GZ			Prepare site for dredging ops. Reshape berm and relocate dredge
Brownsville	RE	688.7R	2009	2 days	MR			pipe.
Brownsville - kiosk	IN	688.7R	2009		СН			Install Kiosk.
								Landscane horm
								Prepare site for dredging ops. CH
Mississippi Gardens	RE	642.4L	2009		MR			needs to coordinate with FWS.
Buck Creek - kiosk	IN	618.0R	2009		СН			Install Kiosk. Install berm signs.
McMillan	RE	618.7L	2009		MR			Prepare site for dredging ops.
		Oth	er Scheduled M	&R Work				
Currently operating at this job.	BS CL DR DS EX FB IN	Closure Dredging Drop Structure Excavation Fabrication Installation Island Landscaping Reshaping			NR MR GZ DQ IaDNR MnDNR WiDNR	Purchase Ord COE Channel COE Natural I COE Mainten COE Dredge COE Dredge Iowa Departm Minnesota De Wisconsin De	er s & Harb Resource ance & R Goetz Dubuque ent of Na partment	ors Unit Project Office tepair Unit stural Resources t of Natural Resources t of Natural Resources
3rd 3rd 3rd 3rd 3rd 3rd 3rd 3rd 3rd 3rd	untain City ownsville ownsville - kiosk nsing Hwy Bridge - Landscaping ssissippi Gardens ck Creek - kiosk Millan	untain City RE ownsville RE ownsville - kiosk IN nsing Hwy Bridge - Landscaping LS ssissippi Gardens RE ck Creek - kiosk IN millian RE orrently operating at this job. ork has been completed. ck Lyck Suspended DR annel Management Study ork Canceled EX FB	untain City RE 731.9L Demovrille RE 688.7R Demovrille - kiosk IN	Unitain City	untain City RE 731.9L 2009 Demovarille RE 688.7R 2009 2 days Demovarille - kiosk IN 688.7R 2009 Demovarille - kiosk IN 688.7R 2009 Demovarille - kiosk IN 688.7R 2009 Sesissippi Gardens RE 642.4L 2009 Demovarille - kiosk IN 618.0R 2009 CK Creek - kiosk IN 618.0R 2009 Demovarille - kiosk IN 618.0R 2009 Other Scheduled M&R Work Demovarily operating at this job. Dirk has been completed. Dirk Supended DR Dredging DR Dredgi	International City	International City	untain City RE 731.9L 2009 GZ Densyille RE 688.7R 2009 2 days MR Densyille - kiosk IN 688.7R 2009 CH Densyille - kiosk IN 688.7R 2009 CH Densyille - kiosk IN 688.7R 2009 CH Densyille - kiosk IN 688.7R 2009 MR Densyille - kiosk IN 618.0R 2009 MR Densyille - kiosk IN 618.0R 2009 CH Densyille - kiosk

Key Characteristics of the River Resources Forum (RRF)

Introduction

This document outlines the characteristics of the St. Paul District's River Resources Forum (RRF), including the purpose, membership, scope, operation and decision-making process. This information is important as the institutional arrangements for management of the UMRS are refined and implemented. Many of these characteristics and protocols also apply to the RRF Work Groups, i.e. the Fish and Wildlife Work Group (FWWG), the Navigation Work Group, the Recreation Work Group, and the Water Level Management Task Force (WLMTF).

The information in this document was taken from several documents produced by the RRF or its membership, including:

- River Resources Forum Partnering Agreement, September 19, 1991
- River Resources Forum Integration with the Navigation and Ecosystem Sustainability Program, March 2008
- DRAFT FOR DISCUSSION District River Teams and the implementation of the Navigation and Ecosystem Sustainability Program, July 2008

Purpose

The RRF Partnering Agreement states: "We, the partners involved in management of the Mississippi River, recognize the multiple uses and benefits provided by this diverse ecosystem and are committed to work together as a trusting, cooperative team to manage the River from a resource-balanced approach in the best interest of the public.

The Partnering Agreement contains the following goals:

- 1. We will actively work to foster confidence and mutual trust by discussing issues openly and respecting differences if they should arise.
- 2. We will work jointly towards our objective of achieving consensus support for agencies' programs, projects, activities, and studies.
- 3. We will promote effective and timely interagency and public communication so that realistic expectations are established and activities are conducted with full awareness.
- 4. We will facilitate internal coordination so that activities are expedited through the administrative process.
- 5. We will be guided by mutually agreed-upon operating procedures.

These goals have been summarized as follows:

- To provide a mechanism for all Federal and State agencies with management or regulatory responsibilities along the Mississippi River and tributaries in the St Paul District area to facilitate the coordination of their programs and activities; and
- To provide an opportunity for other interested parties to express their concerns and views to the agencies

More specific purposes of the RRF include:

- Achieve environmentally sound methods of maintaining the 9-foot channel navigation channel.
- Implement the Environmental Management Program (EMP) and other environmental goals that may be achieved using funds separate from EMP.
- Resolve issues, and plan and implement projects at the regional level.
- Through the RRF work groups, provide scientific and management expertise for project/reach planning and project selection, planning and implementation.
- Provide a forum for public and private interests related to river management.
- Elevate partnership duties as issues are resolved and do not need direct attention of the RRF.

Membership

The following entities were signatories to the 1991 Partnering Agreement. The voting members are indicated with an asterisk (*).

- U.S. Army Corps of Engineers, St. Paul District *
- U.S. Fish and Wildlife Service *
- U.S. Environmental Protection Agency *
- U.S. Coast Guard *
- Soil Conservation Service (now the Natural Resources Conservation Service, or NRCS) *
- National Park Service *
- State of Iowa Department of Natural Resources (DNR) * and Department of Transportation (DOT)
- State of Minnesota DNR *, DOT, and Pollution Control Agency
- State of Wisconsin DNR * and DOT

Navigation and environmental non-government organizations (NGOs) participate in RRF meetings and business, but are not voting members at this time.

Scope

The scope of activities conducted by the RRF is broad, and changes as new programs and issues emerge. To get a sense of the scope of the RRF, one can look at past activities and

accomplishments, as well as potential future activities in the new institutional arrangements contemplated under NESP. Both of these areas help define the scope of the RRF, and are summarized below:

Past Accomplishments

- Completed and implemented individual dredge material management Pool Plans completed by 1986
- Developed and implemented Beach Plans for Pools 7-10 by 1987
- Selected and prioritized habitat projects for the Environmental Management Program (EMP) beginning in 1988 and continued to update the list since that time, with 25 projects implemented to date.
- Completed the Channel Maintenance Management Plan in 1996, which served to streamline all routine Mississippi River dredging and disposal in the St. Paul District.
- Planned and implemented large pool-scale drawdowns to reinvigorate aquatic emergent vegetation.
- Developed and completed the Environmental Pool Plans describing a desired future condition for each navigation pool, September 2004.
- Designed and built islands out of dredge material for environmental benefit.
- Identified and published the ten critical areas where the erosion of railroad tracks adjacent to the commercial navigation channel has the potential of causing serious problems for derailment and spills.
- Determined the best location for mooring cells above and below the locks and dams in the St. Paul District.
- Conducted and evaluated data from recreational boating studies using aerial photography along much of the St. Paul District corridor of the Mississippi River.
- Provided a forum for public and private interests related to river management

Potential Future Activities within NESP Institutional Arrangements

- Provide an effective coordination mechanism for all environmental, recreational and navigation project in the St. Paul District, no matter the funding source.
- Provide an effective coordination mechanism for all channel maintenance activities in the St. Paul District.
- Provide the foundation for NESP coordination at the regional level.
- Provide an effective coordination mechanism for Project Delivery Teams (PDTs) for NESP.
- Provide input to the River Advisory Panel (RAP) to help determine systemic ranking of project/reach ecosystem planning and restoration projects and measures.
- Have the opportunity to review and comment on Science Panel recommendations and findings.
- Attend and explain regional perspectives on NESP related issues and provide information back to the district river teams to complete the coordination.

- Forward important issues/recommendations to be placed on the River Advisory Panel agenda for discussion.
- Address the RAP upon request
- Be actively involved in navigational and ecosystem issues in the St. Paul District
- Share information on any navigation efficiency, reliability, and safety work that is done in the districts.
- Be involved in all navigation and ecosystem issues in the three districts.
- Be kept informed on River Advisory Panel actions and discussions.
- Facilitate any internal responsibilities for NEPA, FWCA or ESA, but the district river team does not replace this responsibility.

Operation

The RRF continues to conduct business in the standard operating protocol that has been established and successfully implemented over the past 27 years. This protocol includes the following elements:

- Meetings are held three times a year.
- Meeting minutes and agenda are sent out before the meeting.
- Any issue which needs RRF endorsement will be sent out at least 30 days in advance for inter-agency consideration and coordination.
- All decisions of the RRF are recorded in the meeting minutes.
- The Fish and Wildlife, Recreation and Navigation Work Groups, and the Water Level Management Task Force will consist of appointed river resources managers from the Federal and State agencies.
- The Corps co-chairs the meetings with a state representative.
- The Corps will provide support staff to document meeting minutes and agendas

Other general operating principles of the RRF include:

- The RRF will continue to be characterized by open and honest discussions, coupled with trust and courtesy, with the goal of achieving and implementing consensus decisions for river management.
- Recommendations by the RRF will be fully considered by the all UMRS recognized partnerships including the potential new RAP.
- The RRF will respond to requests made by all UMRS recognized partnerships in a timely and appropriate manner.
- The RRF will share information and work toward common understanding regarding ecosystem restoration achievements and lessons learned.
- NESP activities will be added to the RRF agenda, but the RRF continue to conduct business in the manner that has been established over the past years.

Decision-making

- The RRF will seek consensus on river issues but, when necessary, issues may be settled by the voting members.
- RRF Work Groups develop solutions to river management issues, and bring them to the RRF for endorsement and implementation.
- The RRF expects that its input will be an important factor in the decision-making process for all recognized UMRS partnerships including the potential new RAP

Date: 20 August 2008

Subject: Draft SOW for an Assessment of Recreational Impacts on Bank Erosion for the Upper Mississippi River

From Jon Hendrickson, Dan Wilcox (St. Paul District Corps of Engineeers

The purpose of this study is to

- 1. Conduct a GIS modeling exercise using existing data sets, shapefiles and equations to determine and map the spatial extent and magnitude of recreational boating shoreline impacts in comparison to those attributable to commercial navigation and wind-generated impacts.
- 2. Quantify the amount of sediment eroded and resuspended by recreational boating and compare the volume to the average annual O&M dredging quantities for each Pool or appropriate reach as part of the GIS modeling exercise. Estimate the amount of additional O&M dredging attributable to recreational boating induced shoreline erosion.

The following information is available

- Cross sections in Upper Pool 4 (Johnson, 200?) which were taken in 199?, 200?, and 200?. These indicated significant quantities of bank erosion.
- Assessment of Upper Mississippi River erosion sites (UMRS Navigation Study Report ????, 19??)
- Pools 1 through 10 Sediment Budget (Hendrickson, 2003)
- Aerial photography: Many years available. 2003 FSA aerial photos, Historic aerial photos of the study reach
- HEC-RAS models for navigation pools developed for the 2003 flow frequency study. These models can be used to determine sediment transport capacity in study reaches.
- Lateral Hydraulic Connectivity (LHC) data for pools 1 through 10.
- Water surface elevation variation between the 5% duration and 75% duration flow events for pools 1 through 10
- Flood profiles for the 2, 5, 10, 20, 50, 100, and 500 year floods.
- Reports
 - Hydraulic Effects of Recreation Boat Traffic on the Upper Mississippi River System (Environmental Report 43, Knight, S.K. and T.M. Parchure, 2004)
 - Bhowmik reports
 - o GREAT reports (Pool 9)

Mississippi River Bed Material (Sand) Budget Conceptual Model, Pool Scale

Pool-Sources Bank Erosion Bed Erosion Tributaries Upstream Downstream Lock and Dam Lock and Dam Backwater Dredging **Off Channel** Deposition Deposition Sources & Sinks Long-Term Trend **Pool-Sinks Tributaries Bank Erosion Bed Erosion** Dredging Backwater Deposition **Channel Fringe**

Deposition

Task No.	Task	Work Description	Time, Cost
1	GIS Data Base	Create an arcmap project that includes Recent & Historic Aerial Photos Digitized Bank lines for 19??, 19?? and 200? Conditions Wave characterisitics from recreational and commercial traffic, and wind using GIS data from the UMR-IWW Navigation Study, and the recent wind-fetch model. Sample and Photo locations from field recon River Miles Geomorphic Features: ???????	Time and cost are included in the following tasks
2	Hydraulic/Geomorphology assessment: ID reaches within navigation pools with similar characteristics based on: • Water surface elevation variation between the 5% duration and 75% duration events. • Recreational boat traffic intensity • Wave characteristics due to recreational and commercial traffic, and wind • Bank erosion assessment from UMR-IWW bank erosion study • Channel maintenance volumes • hydraulic slope • Connectivity • break in channel continuity or grade control due to infrastructure • historic main channel width changes • bank heights Select study reaches. These will probably be pool scale, but the difference between sub-reaches of each pool will have to be quantified.	Initial work is performed in office using existing water surface profiles, recreational boating data, connectivity data, bank erosion data from the UMR-IWW erosion study. This is followed by field reconnaissance of the study reach to verify initial reach delineation identify bank and bed materials determine bank height. Estimate fate of eroded bank sediments Stops, photos, and samples obtained during the reconnaissance should be geo-referenced in a GIS data base. Study reaches should be selected so that different categories of hydraulic conditions and recreational traffic are analyzed Hydraulic categories should probably be based on water level variation, though other hydraulic factors could be considered also. Determining the difference in water surface elevation between the 5-percent and the 75-percent duration events would be the starting point. In category 1, the water surface	Reach Identification using existing data Time: 10 days Cost: \$12000 Field Reconnaissance Time: 1 tripx5 days x 2 people = 10 days Cost: \$12000 Study reach selection: Time: 5 days Cost: \$6000 Total Cost = \$30000

		difference would be less than 1 foot (lower pool). Category 2 difference would be 1 to 3 feet (mid pool). Category 3 differences would be 3 to 5 feet (upper pool). For each category, high, moderate, and low recreation traffic reaches would be chosen. For example, upper pool 4 is a reach with high water surface difference (3 to 5 feet) and with high recreational boat traffic. On the other hand, upper pool 9 is also a reach with high water surface difference (3 to 5 feet) but with low rec traffic.	
3	Bed & Banks Sediment Yield Analysis	Determine river bank migration in selected study reaches based on aerial photo analysis of river bank position for three time periods (196?, 199?, 200? FSA) Estimate sediment yield from river banks from bank migration analysis and bank heights. Assess the magnitude of erosive forces in study reaches: Generate maps and tables of recreational boat-generated wave action, commercial tow-generated wave action, wind-generated wave action, and river currents in study reaches. Estimate fraction of sediment yield from various types of wave action and from river currents in each study reach. Estimate fate of eroded sediments. For instance, does eroded sediment enter navigation channel where it may have to be dredged or is it transported to backwater areas via secondary channels.	River bank migration Time: 10 days Cost: \$12000 Magnitude of erosive forces Time: 20 days Cost: \$24000 Sediment Yield Fractions Time: 5 days Cost: \$6000 Total = \$42000 Note: This assumes that the magnitude of erosive forces can be readily determined from previous navigation study work
5	Sediment Capacity Analysis	Compare sediment erosion from banks to existing sediment budget numbers for study reaches. Determine if channel sediment transport capacity (use HEC-	Time: 10 days Total Cost \$12000

		RAS) matches sediment yields from upstream sources, bed	
		and banks.	
	Estimate the effects of recreational boat traffic on	Plot sediment capacity versus sediment yield (with and	Time: 10 days
_	channel dredging quantities.	without bank erosion estimates) to determine residual	Total Cost \$12000
0		sediment in system. Estimate source of residual sediment	
		based on analysis of erosive forces	
7	Report	Report	Time: 10 days
'			Total Cost \$12000
			Total Cost = \$108,000